# FY-97 ENERGY MANAGEMENT REPORT BILLINGS AREA

# A. Annual Energy Management Data Report

In accordance with the National Energy Conservation Policy Act, as amended by the Energy Policy Act of 1992, the Indian Health Service is targeted to reducing its energy consumption by 20% from 1985 to the year 2000. Annual monitoring at the Service Units and Area Offices provides the necessary means in managing the program.

# I. Energy Consumption and Cost Data

AGENCY:	IHS, Billings Area	REPORTED YEAR:	Fiscal Year 1997
PREPARED BY:	Ron Klem, P.E.	TITLE:	Construction Coord.
PHONE NUMBER:	406-247-7089	DATE SUBMITTED:	October 21, 1997

Energy Type	Reporting Units	Annual Consumpt- ion	Annual Cost	Unit Cost	Total BTU (1,000,000)
Electricity	KWH	5,902,213	\$419,057	\$.071/KWH	20,156
Fuel Oil	Thous. Gal.				
Natural Gas	Thous. Cu. Ft.	52,001	\$156,006	\$3.00/Thous. Cu. Ft.	59,802
LPG	Gallons	13,787	\$14,063	\$1.02/gal	565
TOTALS:			\$589,126		80,523

Gross Square Feet	BTU/Gross Square Feet	\$/Gross Square Feet
510,519	157,730	\$1.15

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# **II. Energy Conservation Program Summary**

AGENCY:	IHS, Billings Area	REPORTED YEAR:	Fiscal Year 1997
PREPARED BY:	Ron Klem, P.E.	TITLE:	Construction Coord.
PHONE NUMBER:	406-247-7089	DATE SUBMITTED:	October 21, 1997

**Direct Agency Expenditures on Facility Energy Efficiency Improvements:** 

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Annual Expenditures, Current Fiscal Year	\$36,100
Annual Expenditures, Next Fiscal Year	\$45,800
Annual Anticipated Savings, Energy	150,000,000 BTU
Annual Anticipated Savings, \$	\$1,100

**Energy Savings Performance Contracts:** 

Number of ESP Contracts Awarded	None
Annual Savings Anticipated	None

**Utility Incentives:** 

County Eliconety Co.	
Incentives received	None
Funds Spent to Receive Incentives	None
Annual Savings Anticipated	None

Training:

Current Year Expenditures for Training	\$7,500
Number of Personnel Trained	12

# **B.** Energy Consumption Reduction Goals

Buildings consume energy for heating, air conditioning, lighting, computer systems, and other

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various types of equipment. Reducing this energy consumption without impairing the indoor environment or the services for patient care is a realistic goal pursued by the Billings Area Office.

Monitoring of the energy consumption in the Billings Area showed a significant reduction of energy per gross square foot from last year's report. However, the square footage was increased due to new facilities, while the old buildings were mostly left inactive. Transfer/Demolition of these inactive buildings will take place during Fiscal Year 1998.

### C. Energy Saving Performance Contracts

At the present time, there are no specific energy saving performance contracts in place.

### D. Energy Efficiency and Water Conservation Project Funding

The Facilities Management Branch utilizes Maintenance and Improvement (M&I), Quarters, and Medicare/Medicaid (M&M) funds to construct, repair, and retrofit the medical facilities and quarters in Montana and Wyoming with energy efficient systems. Energy efficient lighting systems, building insulation materials, and HVAC energy management control systems have all been designed into various projects this year.

### E. Energy and Water Surveys and Audits

No energy and water surveys or audits were conducted at the Service Units this year.

#### F. Implementation of Energy and Water Conservation Projects

No information to report.

#### G. Solar and other Renewable Energy

No information to report.

#### H. Minimization of Petroleum-Based Fuel Use

No information to report.

#### I. Energy Efficient Operations/Maintenance Procedures

Operation and Maintenance (O&M) procedures include Preventive Maintenance (PM) techniques to keep the building operating systems at their highest efficiency levels. Examples involve boiler

systems, air handlers, and light fixtures. Other facility areas are constantly monitored during daily inspections, such as weather stripping, window air seepage, unsealed wall penetrations, and overhead door areas.

### J. Energy Efficiency in New Space

Energy efficient systems are designed into all of the projects overseen or developed by the Facilities Management Branch. Energy efficient building components and maintenance free devices are constantly reviewed and incorporated into new project designs.

#### K. Performance Evaluations

No information to report.

#### L. Incentive Awards

No information to report.

### M. Procurement of Energy Efficient Products

With the use of "SweetSource", a product information catalog, new energy efficient products are reviewed by the Facilities Management Branch engineers. These computerized CD catalogs are updated and provided on a quarterly basis by the contracted vendor.

# N. Energy Management Training

The biggest energy drain in Montana and Wyoming is the heating requirement. Facility Managers are annually trained on the Direct Digital Controls (DDC's) of their specific HVAC system to properly maintain and operate them in an efficient manner. Other energy management courses are offered when available within the area.

# O. Environmental Impacts of Energy Management Activities

No information to report.